



BACKGROUND OF THE INVENTION

Related Applications

This application claims the benefit of U.S. Provisional Patent Application Serial No. 60/115,573, entitled "Resolution and Image Enhancement for Patterned Displays," filed January 12, 1999 and U.S. Provisional Patent Application Serial No. 60/115,731, entitled "Resolution Enhancement for Patterned Displays," filed January 12, 1999, both of which are incorporated herein by reference. This application is also a continuation-in-part of U.S. Patent Application Serial No. 09/364,365, entitled "Methods, Apparatus and Data Structures for Enhancing the Resolution of Images to be Rendered on Patterned Display Devices," filed July 30, 1999, which is incorporated herein by reference.

2. The Field of the Invention

The present invention relates to rendering images on display devices having pixels with separately controllable pixel sub-components. More specifically, the present invention relates to filtering and subsequent displaced sampling of image data to obtain a desired degree of luminance accuracy and color accuracy.

3. The Prior State of the Art

As computers become ever more ubiquitous in modern society, computer users spend increasing amount of time viewing images on display devices. Flat panel display devices, such as liquid crystal display (LCD) devices, and cathode ray tube (CRT) display devices are two of the most common types of display devices used to render text and graphics. CRT display devices use a scanning electron beam to activate phosphors arranged on a screen. Each pixel of a CRT display device consists of a triad of phosphors, each of a

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